

OBJECTIVE 10: ALERT AND NOTIFICATION

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OBJECTIVE

Demonstrate the capability to promptly alert and notify the public within the 10-mile plume pathway emergency planning zone (EPZ) and disseminate instructional messages to the public on the basis of decisions by appropriate State or local officials.

INTENT

This objective is derived from NUREG-0654 which provides that OROs should have the capability to provide prompt instructions to the public within the plume pathway EPZ. (See evaluation criteria from Planning Standards E. and N.) Specific provisions addressed in this objective are derived from the Nuclear Regulatory Commission (NRC) rule (10 CFR Part 50.47, Appendix E.IV.D.3.), FEMA's Standard Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants (FEMA-43), and FEMA Guidance Memorandum (GM) AN-1, "FEMA Action to Qualify Alert and Notification Systems Against NUREG-0654/FEMA-REP-1 and FEMA-REP-10."

Demonstration of this objective focuses on the completion of activities required for alert and notification sequences for areas within the plume pathway EPZ by adherence to the OROs plans. Contents of the notification messages resulting from activities in this objective are covered in Objective 11, Public Instructions and Emergency Information.

DEMONSTRATION CRITERIA

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CRITERION

E.5.,6.,7.

1. Activities associated with primary alerting and notification sequences are completed within 15 minutes of the initial decision by authorized offsite emergency officials.

Explanation

Responsible OROs should demonstrate the capability to provide both an alert signal and an initial instructional message to populated areas throughout the 10-mile plume pathway EPZ within 15 minutes of the decision by authorized offsite officials to activate the alert and notification system to implement protective action recommendations (PAR). This capability

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should be demonstrated in conjunction with all primary notification systems for the general population, including the Emergency Broadcast System (EBS).

Alert and notification capability should be demonstrated by responsible OROs in all permanent and transient population areas within 10 miles of the nuclear power plant other than exception areas, 5-10 miles from the nuclear power plant. Exception areas are areas specifically designated in ORO plans as areas where the 45-minute alert and notification provision applies. Generally, these exception areas are remote areas, rural areas, open water areas, rivers, hunting areas, recreational areas, private compounds, beaches, national forests, and other low-population areas that may require special alerting and notification procedures. All exception areas should be approved by FEMA.

Responsible OROs should be able to complete the following actions within 15 minutes of each decision to alert and notify the public and issue PARs following notification by the licensee of a declared emergency classification level (ECL) [Notification of Unusual Event (NOUE), Alert, Site Area Emergency (SAE), or General Emergency (GE)] at the nuclear power plant.

- o Make a decision concerning the need to provide emergency alerting and notification to the public. (This decision point is the trigger for the 15-minute sequence. The process of decision making is addressed in Objective 9, Plume Protective Action Decision Making.)
- o Select an appropriate pre-scripted message, modify a pre-scripted message, or formulate an *ad hoc* message.
- o Complete coordination activities with all other OROs with whom such coordination is required on both activation of the alerting system and timing and contents of the notification message.
- o Activate the alert signal(s).
- o Complete all coordination steps with EBS station(s) in order to ensure that the correct message is broadcast. (This entails:
 - station notification of which pre-scripted message is to be used, or transmission of hard copy of an *ad hoc* message to the station, or arranging for direct tie into an EBS station by an ORO spokesperson and

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- receipt of verification from the station of the *ad hoc* message or the instruction for use of a pre-scripted message.)
- o Complete all primary route alerting and notification activities, if applicable.
- o Initiate dissemination of the emergency message to the public via the EBS and any other means specified as primary in the ORO plan. (In the case of primary route alerting and notification, the message is provided by means of public address (PA) system(s). In the case of special population devices, all notification messages are initiated.)

Failure by responsible OROs to complete the initial alert and notification sequence within 15 minutes will result in the identification of a Deficiency. This is because of the critical importance of this function for protecting public health and safety. While other alert and notification sequences other than the initial one are timed, but not evaluated, Deficiencies should not be identified for the alert and notification capability if the 15 minute time frame is not met for these sequences. However, this does not preclude the identification for such situations based on emergency functions other than alert and notification.

Extent of Play

Under this criterion, all alert and notification actions for each sequence leading to the forwarding of emergency messages to radio and television stations should be performed as they would be in an actual emergency. However, it is not necessary to actually activate or sound the sirens (or other alerting methods) or broadcast the exercise EBS messages. The extent-of-play agreement for this objective should specify whether sirens will be activated and messages broadcast over EBS, National Oceanic and Atmospheric Administration (NOAA) weather station, radio system, PA system, tone-alert radios, telecommunication devices for the deaf (TDD), etc.

All actions in the **Explanation** section should be demonstrated, including replying to and verifying receipt of messages with EBS stations.

In addition, primary systems such as TDDs, tone-alert radios, telephone calls to individuals and institutions specified in the plan should be demonstrated through means such as telephone calls to a control cell (e.g., TDDs and tone-alert radios actually being activated with a message). During exercises, if OROs voluntarily chose to contact special needs populations to provide emergency information, they may do so. If this option is selected, FEMA will evaluate such contacts.

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When evaluating the demonstration of the time provisions associated with this objective, the following ground rules apply:

- o Evaluators should record the times for **all** alert and notification sequences, starting with the decision by the responsible governmental official(s) to alert and notify the public.
- o For notification by the EBS, the last time to be recorded is the time that the EBS station(s) begins the broadcast, actual or simulated. Since messages may not be actually broadcast, it is assumed that broadcast commences as soon as all interactions between response organizations and the EBS stations are completed. For primary route alerting and notification, the last time to be recorded is the time of completion of all routes demonstrated.
- o While all alert and notification sequences should be timed, FEMA's evaluation should be made only on the **initial (first) sequence** regardless of whether or not the accompanying emergency message contains a PAR (e.g., shelter or evacuate).

Where activation of sirens is accomplished electronically and simulated rather than demonstrated, evaluators should secure the time of alert system activation from the individual simulating the activation. Also, when EBS message broadcasts are simulated, evaluators should secure the time that EBS messages are verified by involved EBS stations and the time station broadcasters indicate for initiation of the broadcasts.

If an organization has multiple routes for primary route alerting and notification, only one route should be demonstrated and evaluated per responsible ORO. This route should be demonstrated exactly as it would be in an actual emergency. All alert and notification activities along routes should be simulated. The PA system should be demonstrated by a test message along the routes or at some agreed upon location. The evaluator should record the time the decision was made by OROs to alert and notify the public, the time route alerting teams started the particular designated routes, and the time teams completed the designated routes.

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E.6.

2. **Backup route alerting and notification is completed within approximately 45 minutes.**

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Explanation

Responsible OROs should demonstrate the capability to provide alert and notification of the public should primary alert and notification systems fail. The suggested time frame for completion of the backup alert and notification process is 45 minutes.

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Extent of Play

Backup alert and notification system(s) should be demonstrated and evaluated only in the event the exercise scenario calls for failure of the primary system(s), or sirens actually fail to function. Only one route should be demonstrated and evaluated per responsible ORO. If demonstrated, all backup alert and notification activities should be completed as they would be in an actual emergency, according to the organization's plan, subject to extent-of-play agreement.

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| E.6. | 3. OROs use supplementary route alerting to complement primary route alerting and/or notification methods. |
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Explanation

ORO's may choose to provide supplementary route alerting and notification in addition to primary route alerting and notification methods. Since provision of this emergency activity is discretionary, demonstration of supplementary route alerting and notification is only necessary when this provision is incorporated in ORO plans.

Extent of Play

Supplementary alert and notification capabilities should be conducted as they would be in an actual emergency as specified in ORO plans, subject to the extent-of-play agreement. Only one supplementary alert and notification route should be demonstrated and evaluated per responsible ORO.

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| E.6. | 4. OROs provide an alert signal and begin transmitting an initial instructional message to exception area populations located 5 to 10 miles from the nuclear power plant within 45 minutes of the initial alert and notification decision. (If there is no exception area, this criterion does not apply.) |
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Explanation

Responsible OROs with exception areas 5-10 miles from the nuclear power plant should demonstrate the capability to accomplish alert and notification of the exception area populations within 45 minutes of the decision to activate the alert and notification system. Exception areas are generally extremely rural, low-population areas such as rural farms, hunting areas, recreational areas, open water areas, national forests, beaches, and rivers. Responsible OROs should demonstrate the capability to complete all steps in the alert and notification sequence described in Demonstration Criterion 1.

Extent of Play

All alert and notification activities should be conducted as they would be in an actual emergency. Subject to the extent-of-play agreement, the alerting and notification of one exception area per responsible ORO should be selected for demonstration and evaluation.

This route should be the most populated and difficult route among the routes called for in the plan. Routes should be demonstrated exactly as they would be in an actual emergency. All alert and notification activities along routes should be simulated. The PA system should be demonstrated with a test message along the route or at some agreed-upon location.

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| N.1.a. | 5. | All activities described in the demonstration criteria for this objective are carried out in accordance with the plan, unless deviations are provided for in the extent-of-play agreement. |
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Explanation

Responsible OROs should demonstrate the capability to follow policies, implement procedures, and utilize equipment and facilities contained in their plans and procedures. OROs should demonstrate that they can follow sequences outlined in the various procedures and perform specified activities, as necessary.

Extent of Play

Under this criterion, all activities should be carried out as specified in the plan, unless deviation from the plan is provided for in the extent-of-play agreement.

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CLARIFICATION OF TERMS

Activation refers to a process by which a facility is brought up to emergency mode from a normal mode of operation. Activation is completed when the facility is ready to carry out full emergency operations.

Alerting the public refers to activating an attention-getting warning signal through such means as sirens, tone alert radios, route alerting, and speakers on cars, helicopters, and boats.

Control cell refers to exercise personnel who facilitate interfaces with nonparticipating groups, such as State and local government officials and special needs populations.

Coordination, in this objective, means that the ORO either notifies other participating OROs of its intended actions or consults with them on the timing of alert system activation or the initiation or contents of emergency messages to the public.

Emergency classification level(s) (ECL):

- (1) **Notification of Unusual Event** indicates that unusual events are in process or have occurred that indicate a potential degradation in the level of plant safety. No releases of radioactive material requiring offsite response or monitoring are expected, unless further degradation of safety systems occurs.
- (2) **Alert** indicates that events are in process or have occurred that involve an actual or potential substantial degradation in the level of plant safety. Releases are expected to be limited to small fractions of the Environmental Protection Agency (EPA) protective action guides (PAG) exposure levels.
- (3) **Site Area Emergency** indicates that events are in process or have occurred that involve actual or likely major failures in the plant functions needed for protecting the public. Releases are not expected to exceed EPA PAG exposure levels, except near the site boundary.
- (4) **General Emergency** indicates that events are in process or have occurred that involve actual or imminent substantial core degradation or melting, with potential for loss of containment integrity. Releases can reasonably be expected to exceed EPA PAG exposure levels offsite, beyond the

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immediate site area.

Emergency information refers to material designed to improve public knowledge or understanding of an emergency.

Exception area refers to an area located approximately 5 to 10 miles from a nuclear power plant and specifically designated in an organization's plan, for which the 15-minute alerting and notification provision does not apply. For these areas, off-site authorities have approximately 45 minutes to complete alert and notification of the public.

Notifying the public refers to disseminating an instructional message, either through the Emergency Broadcast System or some other system.

Special populations are groups of individuals with physical or mental handicaps that need assistance when protective actions are implemented.